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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,790	12/31/1999	GEOFF BARRETT	S1022/8363	9742
7590	03/09/2004		EXAMINER	
JAMES H MORRIS C/O WOLF GREEFIELD & SACKS PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 022102211			DAY, HERNG DER	
			ART UNIT	PAPER NUMBER
			2128	11
			DATE MAILED: 03/09/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/477,790	BARRETT, GEOFF
	Examiner	Art Unit
	Herng-der Day	2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 December 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 10 December 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. 09/028,415.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- Notice of References Cited (PTO-892)
- Notice of Draftsperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- Notice of Informal Patent Application (PTO-152)
- Other: _____

DETAILED ACTION

1. This communication is in response to Applicant's Amendment (paper # 8) to Office Action dated July 8, 2003 (paper # 6), mailed December 8, 2003, and received by PTO December 10, 2003.

1-1. Claims 1, 2, 5, 8, and 13-15 have been amended; claims 1-21 are pending.

1-2. Claims 1-21 have been examined and claims 1-21 have been rejected.

Drawings

2. The proposed replacement sheet of FIG. 3, filed on December 8, 2003, has been disapproved because it introduces the new vocabulary "transistions" which appears to be a typo.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4-1. For example, all the equations as described in the last line of page 5 and in lines 3-4 and 7 of page 6 are obviously incorrect. These equations contain either unpaired parenthesis or even

without equal sign. It is unclear for one skilled in the art how to make and/or use the invention without undue experiment because even the exemplary procedure is not enabled.

4-2. Claims 1 and 5-7 recite the limitation “control system” in each claim and claims 2-4 and 8-21 recite the limitation “electronic circuit” in each claim. However, in the specification, only bits representative of states and transition functions are used and the parameterization technique is implemented by Boolean operations. Specifically, in lines 4-5 of page 5, Applicant admits, “The invention accordingly provides a method and apparatus for synthesizing a reverse model of a finite state machine”. Accordingly, it is unclear for one skilled in the art how to make and/or use the invention without undue experimentation when the “control system” or “electronic circuit” cannot be represented by a finite state machine.

Double Patenting

5. Applicant has filed terminal disclaimer on December 8, 2003. The claim rejections in paper # 6 under the judicially created doctrine of obviousness-type double patenting have been withdrawn.

Claim Interpretation

6. Claims 1 and 5-7 recite the limitation “control system” in each claim. However, only finite state machine has been supported in the specification, as detailed in section **4-2** above. For the purpose of claim examination with the broadest reasonable interpretation, the Examiner will interpret the “control system” as a “finite state machine”.

7. Claims 2-4 and 8-21 recite the limitation “electronic circuit” in each claim. However, only finite state machine has been supported in the specification, as detailed in section **4-2** above.

For the purpose of claim examination with the broadest reasonable interpretation, the Examiner will interpret the “electronic circuit” as a “finite state machine” and inherently may include logic circuit and microprocessor.

Applicant's Arguments

8. Applicant argues the following:

8-1. (1) Claims 1-21 Satisfy Requirements of 35 U.S.C. §112, First Paragraph.

(A) “Any Errors In The Equations Are Not Fatal Under §112 ¶1” (pages 9-10, paper # 8).

(B) “Applying A Constraint To Transitions Of The Reverse Model Does Not Render The Disclosure Unclear” (pages 10-12, paper # 8).

(C) “The Specification Does Not Disclose Introducing Inputs Into State Variables” (pages 12-13, paper # 8).

(D) “Claims 1 and 5-7 Have Been Amended To Recite A Reverse Model Of A “State Machine Model” (page 13, paper # 8).

8-2. (2) Claims 13 and 15-19 Have Been Amended to Satisfy the Requirements of 35 U.S.C. §112, ¶2.

8-3. (3) Rejections Under 35 U.S.C. §102.

Claims are not anticipated by Vai or Wu (pages 14-18, paper # 8).

Response to Arguments

9. Applicant's arguments have been fully considered.

9-1. Response to Applicant's argument (1). Applicant's arguments (B) and (C) are persuasive. The Examiner respectfully disagrees with Applicant's arguments (A) and (D).

Regarding arguments (A), one of ordinary skilled in the art may recognize that there are errors in the equations. However, to correct them may not be straightforward without undue experimentation. Applicant should not rely on one of ordinary skilled in the art to figure out and correct all the non-enabled equations.

If supporting evidence exists, Applicant should explicitly amend the Specification to correct those non-enabled equations such that one of ordinary skilled in the art knows how to use the parameterization technique without undue experimentation. Such an amendment should include remarks pointing to the reference containing the support for the amendment.

Regarding arguments (D), only "finite state machine" has been disclosed, as described in lines 4-5 of page 5, "The invention accordingly provides a method and apparatus for synthesizing a reverse model of a finite state machine".

9-2. Applicant's argument (2) is persuasive. The original claim rejections in paper # 6 under 35 U.S.C. 112, second paragraph, for indefiniteness have been withdrawn.

9-3. Applicant's argument (3) is persuasive. The original claim rejections in paper # 6 under 35 U.S.C. 102, have been withdrawn.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

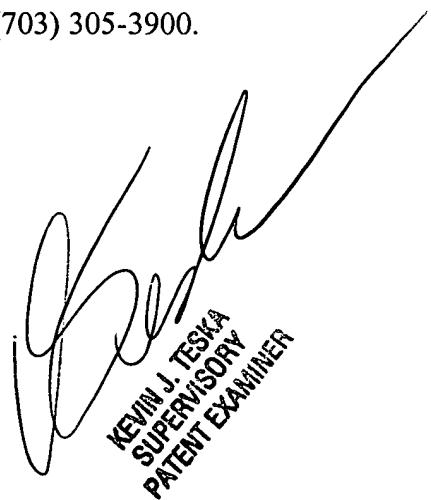
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin J Teska can be reached on (703) 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day
March 5, 2004



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER